What is claimed is:

1. A method for developing a latent image formed on an image carrier with a developing liquid, said developing method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

sensing a liquid level in said liquid storing section using a float type liquid level sensor,

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member; and

spherical floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

2. The device as claimed in claim 1, wherein said magnetic force generating member is movable up and down relative to said magnetic force sensing means together with said floats.

3. The method as claimed in claim 2, wherein said magnetic force sensing means comprises a plurality of magnetic force sensing means arranged in parallel in the up-and-down direction.

4. The method as claimed in claim 3, wherein said floats are formed of foam resin.

5. The method as claimed in claim 4, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

6. The method as claimed in claim 5, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

7. The device as claimed in claim 6, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

8. The method as claimed in claim 7, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

9. The method as claimed in claim 1, wherein said floats include foam resin.

10. The method as claimed in claim 9, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

11. The method as claimed in claim 10, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

12. The device as claimed in claim 11, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

13. The method as claimed in claim 12, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

14. The method as claimed in claim 1, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

15. The method as claimed in claim 14, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

16. The method as claimed in claim 15, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

17. The method as claimed in claim 16, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

18. An image forming method comprising:

forming a latent image on an image carrier;

forming the latent image on said image carrier using image forming means; and

depositing a developing substance contained in a developing liquid on the latent image using a developing device to thereby develop said latent image;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

a float type liquid level sensor for sensing a liquid level in said liquid storing section;

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member; and

spherical floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

19. The method as claimed in claim 18, further comprising:

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using a content sensing means;

collecting the developing liquid used for development and returning said developing liquid to said liquid storing section using a collecting means;

replenishing a control agent for controlling the content of the developing substance of the developing liquid to said liquid storing section using a replenishing means; and

controllably driving said means in accordance with an output of said content sensing means and an output of said liquid level sensor to thereby control the content of the developing substance using a controlling means.

20. The method as claimed in claim 19, wherein whether or not the control agent is present in said replenishing means is determined on the basis of the output of said liquid level sensor and a duration of drive of said replenishing means.

21. The method as claimed in claim 20, wherein the developing liquid contains the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

22. A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

sensing a liquid level in said liquid storing section using a float type liquid level sensor;

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said means for sensing.

23. The method as claimed in claim 22, wherein said magnetic force generating member is movable up and down relative to said magnetic force sensing means together with said floats.

24. The method as claimed in claim 23, wherein said magnetic force sensing means comprises a plurality of sensing means arranged in parallel in the up-and-down direction.

25. The method as claimed in claim 24, wherein said floats are formed of foam resin.

26. The device as claimed in claim 25, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said agent storing section for agitating the developing liquid.

27. The device as claimed in claim 26, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

28. The method as claimed in claim 27, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

29. The method as claimed in claim 28, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

30. The method as claimed in claim 22, wherein said floats are formed of foam resin.

31. The method as claimed in claim 30, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

32. The method as claimed in claim 31, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow in along said axis.

33. The method as claimed in claim 32, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

34. The method as claimed in claim 33, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

35. The method as claimed in claim 22, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

36. The method as claimed in claim 35, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

37. The method as claimed in claim 36, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

38. The method as claimed in claim 37, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

39. An image forming method comprising:

forming a latent image on an image carrier;

forming the latent image on said image carrier using an image forming means; and

depositing a developing substance contained in a developing liquid on the latent image to thereby develop said latent image;

said developing comprising:

storing the developing liquid consisting of the developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

sensing a liquid level in said liquid storing section using a float type liquid level sensor;

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section; and

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said means for sensing at

a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said means for sensing varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said means for sensing.

40. The method as claimed in claim 39, further comprising:

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content sensing means;

collecting the developing liquid used for development and returning said developing liquid to said liquid storing section using a collecting means;

replenishing a control agent for controlling the content of the developing substance of the developing liquid to said liquid storing section using replenishing means; and

controllably driving said replenishing means in accordance with an output of said content sensing means and an output of said liquid level sensor to thereby control the content of the developing substance using a means for controlling.

41. The method as claimed in claim 40, wherein whether or not the control agent is present in said replenishing means is determined on the basis of the output of said liquid level sensor and a duration of drive of said replenishing means.

42. The method as claimed in claim 41, wherein the developing liquid contains the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

43. A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid using an agitating means rotatable in said liquid storing section,

wherein said agitating means rotates about an axis offset from a center of a cross-section of said liquid storing section.

44. The method as claimed in claim 43, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

45. The method as claimed in claim 44, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

46. The method as claimed in claim 45, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

47. The method as claimed in claim 46, further comprising:

collecting the developing liquid used for development from said developer carrier and causing said developing liquid collected to drop to a liquid surface in said liquid storing section at a position closer to the axis than to the center using collecting means;

sensing a content of the developing substance of the developing liquid guided upward by said taper using a content sensing means; and

causing a content agent to drop to the liquid surface in accordance with an output of said content sensing means to thereby control a content of the developing substance of the developing liquid stored in said liquid storing section.

48. An image forming method comprising:

forming a latent image on an image carrier;

forming the latent image on said image carrier using image forming a means; and

depositing a developing substance contained in a developing liquid on the latent image to thereby develop said latent image using a developing device;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

agitating means rotatable in said liquid storing section for causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid,

wherein said agitating means rotates about an axis offset from a center of a cross-section of said liquid storing section.

49. The method as claimed in claim 48, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

50. The method as claimed in claim 49, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

51. The method as claimed in claim 50, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

52. The method as claimed in claim 51, further comprising:

collecting means for collecting the developing liquid used for development from said developer carrier and causing said developing liquid collected to drop to a liquid surface in said liquid storing section at a position closer to the axis than to the center;

content sensing means for sensing a content of the developing substance of the developing liquid guided upward by said taper; and

content controlling means for causing a content agent to drop to the liquid surface in accordance with an output of said content sensing means to thereby control a content of the developing substance of the developing liquid stored in said liquid storing section.

53. A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid using an agitating means rotatable in said liquid storing section, said agitating means comprising flexible agitating means.

54. The method as claimed in claim 53, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method further comprising:

collecting the developing liquid used for development from said developer carrier using a collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means using content controlling means,

wherein said flexible agitating means is disposed at least in said second liquid storing section.

55. The method as claimed in claim 54, wherein said agitating means further comprises non-flexible agitating means located at a position different from said flexible agitating means.

56. The method as claimed in claim 55, wherein said flexible agitating means and said non-flexible agitating means are rotated by a single shaft.

57. The method as claimed in claim 56, wherein said non-flexible agitating means causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation while swirling in accordance with the rotation of said non-flexible agitating means.

58. The method as claimed in claim 57, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method further comprising:

collecting the developing liquid used for development from said developer carrier using collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means;

wherein said flexible agitating means is disposed at least in said second liquid storing section.

59. An image forming method comprising:

forming a latent image on an image carrier;

forming a latent image on said image carrier using image forming means; and

developing the latent image by depositing a developing substance contained in the developing liquid on said latent image using a developing device;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

agitating means rotatable in said liquid storing section for causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid, said agitating means comprising flexible agitating means.

60. The method as claimed in claim 59, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method further comprising:

collecting the developing liquid used for development from said developer carrier using collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means using content controlling means,

wherein said flexible agitating means is disposed at least in said second liquid storing section.

61. The method as claimed in claim 60, wherein said agitating means further comprises non-flexible agitating means located at a position different from said flexible agitating means.

62. The method as claimed in claim 61, wherein said flexible agitating means and said non-flexible agitating means are rotated by a single shaft.

63. The method as claimed in claim 62, wherein said non-flexible agitating means causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation while swirling in accordance with the rotation of said non-flexible agitating means.

64. The method as claimed in claim 63, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method comprising:

collecting the developing liquid used for development from said developer carrier using collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means using content controlling means,

wherein said flexible agitating means is disposed at least in said second liquid storing section.

65. A method for developing a latent image formed on an image carrier with a developing liquid said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier; and

causing the developing liquid to swirl along an inner periphery of said liquid storing section to thereby agitate said developing liquid using agitating means rotatable in said liquid storing section, said agitating means generating a flow of said developing liquid along an axis of rotation of said agitating means.

66. The method as claimed in claim 65, wherein the flow of the developing liquid extends toward a bottom of said liquid storing section.

67. The method as claimed in claim 66, wherein said agitating means comprises a plurality of blades radially extending from a shaft and positioned one above the other in an axial direction of said shaft, said plurality of blades facing each other at a preselected distance while being inclined relative to said axial direction each.

68. The method as claimed in claim 67, wherein upper blades included in said blades each have a rear portion in a direction of rotation that is inclined more sharply than a front portion in such a manner as to approach a lower blade more than said front portion.

69. The method as claimed in claim 68, wherein said upper blade and said lower blade facing each other are shifted from each other such that the front portion and the rear portion of said upper blade are positioned ahead of the front portion and the rear portion of said lower blade.

70. An image forming method comprising:

forming a latent image on an image carrier;

forming a latent image on said image carrier using image forming means; and

developing the latent image by depositing a developing substance contained in a developing liquid on said latent image using a developing device;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

agitating means rotatable in said liquid storing section for causing the developing liquid to swirl along an inner periphery of said liquid storing section to thereby agitate said

developing liquid, said agitating means generating a flow of said developing liquid along an axis of rotation of said agitating means.

71. The method as claimed in claim 70, wherein the flow of the developing liquid extends toward a bottom of said liquid storing section.

72. The method as claimed in claim 71, wherein said agitating means comprises a plurality of blades radially extending from a shaft and positioned one above the other in an axial direction of said shaft, said plurality of blades facing each other at a preselected distance while being inclined relative to said axial direction each.

73. The method as claimed in claim 72, wherein upper blades included in said blades each have a rear portion in a direction of rotation that is inclined more sharply than a front portion in such a manner as to approach a lower blade more than said front portion.

74. The method as claimed in claim 73, wherein said upper blade and said lower blade facing each other are shifted from each other such that the front portion and the rear portion of said upper blade are positioned ahead of the front portion and the rear portion of said lower blade.

75. An image forming method comprising:

forming a latent image on an image carrier;

storing a developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier and causing said developing liquid to deposit on the latent image to thereby develop said latent image;

transferring a developed image from said image carrier to a recording medium using transferring means;

removing the developing liquid left on said image carrier after image transfer using cleaning means;

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content means;

comparing an output of said content sensing means and a preselected target content and feeding a control agent to said liquid storing section in accordance with a result of comparison to thereby control a content of the developing substance using content controlling means; and

storing the developing liquid removed by said cleaning means in a residual liquid storing section,

wherein the developing liquid stored in said residual liquid storing section is used as the control agent.

76. The method as claimed in claim 75, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

77. The method as claimed in claim 75, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;

signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates a continuous output of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

78. The method as claimed in claim 77, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

79. The method as claimed in claim 78, wherein said liquid level sensing means comprises:

a magnetic force generating member;

means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said means for sensing at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said means for sensing varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

80. The method as claimed in claim 79, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 o and has viscosity of between 100 mPa·s and 10,000 mPa·s.

81. The method as claimed in claim 75, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

82. The method as claimed in claim 81, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

83. The method as claimed in claim 82, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

84. An image forming method comprising:

forming a latent image on an image carrier;

storing a developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier and causing said developing liquid to deposit on the latent image to thereby develop said latent image;

removing the developing liquid left on said image carrier after development using a first cleaning means;

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content sensing means;

comparing an output of said content sensing means and a preselected target content and feeding a control agent to said liquid storing section in accordance with a result of comparison to thereby control a content of the developing substance using content controlling means;

calculating image density of a developed image using image density calculating means;

storing the developing liquid removed by said first cleaning means in a first residual liquid storing section;

conveying the developing liquid from said cleaning means to said liquid storing section by bypassing said first residual liquid storing section using bypass conveying means; and

controlling said bypass conveying means in accordance with image density calculated by said image density calculating means using bypass controlling means.

85. The method as claimed in claim 84, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

86. The method as claimed in claim 84, wherein the developing liquid stored in said first residual liquid storing section is used as a control agent for controlling the content of the developing substance of the developing liquid stored in said liquid storing section.

87. The method as claimed in claim 86, further comprising:

transferring a developed image from said image carrier to an intermediate image transfer body and then from said intermediate image transfer body to a recording medium using transferring means;

removing the developing liquid left on said image carrier after image transfer using second cleaning means;

storing the developing liquid removed by said second cleaning means using a second residual liquid storing section,

wherein a mixture of the developing liquid stored in said first residual liquid storing section and the developing liquid stored in said second residual liquid storing section is used as the control agent.

88. The method as claimed in claim 87, wherein a carrier liquid is used as the control agent.

89. The method as claimed in claim 88, wherein the developing liquid stored in said second residual liquid storing section is used prior to the carrier liquid.

90. The method as claimed in claim 89, wherein a developing liquid whose developing substance has a content higher than a target content is used as the control agent.

91. The method as claimed in claim 90, wherein the target content is higher than a standard content, which is a content desirable for development, within a range that maintains a difference between development density derived from the developing density having the target content and development density derived from a developing liquid having said target content unobservable by eye.

92. The method as claimed in claim 91, further comprising storing a result of calculation output from said image density calculating means and the target density in storing means, wherein said target density stored in said storing means is updated in accordance with a plurality of results of calculation written in said storing means.

93. The method as claimed in claim 84, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a.directicn of thickness;

signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates a continuous output of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

94. The method as claimed in claim 93, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

95. The method as claimed in claim 94, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

96. The method as claimed in claim 95, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

97. The method as claimed in claim 84, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

98. The method as claimed in claim 97, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

99. The method as claimed in claim 98, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

100. An image forming method comprising:

forming a latent image on an image carrier;

forming a latent image on said image carrier using image forming means;

storing a developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier and causing said developing liquid to deposit on the latent image to thereby develop said latent image;

removing the developing liquid left on said image carrier after development using first cleaning means;

conveying the developing liquid from said first cleaning means to said liquid storing section using first conveying means;

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content sensing means;

comparing an output of said content sensing means and a preselected target content and feeding a control agent to said liquid storing section in accordance with a result of comparison to thereby control a content of the developing substance using contennt controling means; and

calculating density of a developed image using image density calculating means,

wherein a timing for starting forming the latent image on said image carrier is determined in accordance with image density output from said image density calculating means.

101. The method as claimed in claim 100, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

102. The method as claimed in claim 100, further comprising:

transferring the developed image from said image carrier to an intermediate image transfer body and then from said intermediate image transfer body to a recording medium using transferring means;

removing the developing liquid from said image carrier after image transfer using second cleaning means; and

conveying the developing liquid from said second cleaning means to said liquid storing section using second conveying means.

103. The method as claimed in claim 102, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;

signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates outputs of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

104. The method as claimed in claim 103, further comprising sensing a liquid level in said liquid storing section using liquid level sensing means, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

105. The method as claimed in claim 104, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

106. The method as claimed in claim 105, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

107. The method as claimed in claim 100, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;

signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates outputs of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

108. The method as claimed in claim 107, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

109. The method as claimed in claim 108, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

110. The method as claimed in claim 109, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

111. The method as claimed in claim 100, further comprising sensing a liquid level in said liquid storing section using liquid level sensing means, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

112. The method as claimed in claim 111, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

113. The method as claimed in claim 112, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.